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ABSTRACT

This paper, a summary of a document created for a Master of Arts degree in Interior Design at Northern Illinois University, Dekalb, Illinois, discusses research on "wayfinding" and the need for designers and planners to recognize its importance in order to provide more user-friendly environments. Orientation is the first step in successful wayfinding. Through images, names and meanings, the concept of a sense of place can be grasped. Cognitive mapping is the process that enables individuals to mentally organize or comprehend stimuli; cognitive maps are formed by information from the environment which is obtained from the five senses. Research in urban planning, environmental psychology, sociology, architecture, interior design, and environmental graphic design has proven that wayfinding is not only a complex process, but a critical design issue involving several disciplines. Designers must be able to communicate different types of information to different types of users. Elements of an effective wayfinding system include: (1) spaces that are visually distinctive; (2) points of reference; (3) a building layout that is easy to understand and remember; (4) memorable landmarks; (5) signs, symbols, directories, and maps; (5) staff who are well-trained in giving instructions. A description of the presentation of the one-person show done to fulfill requirements of the Master of Arts degree concludes the paper. (Contains 21 references.) (AEF)

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ED 391 521

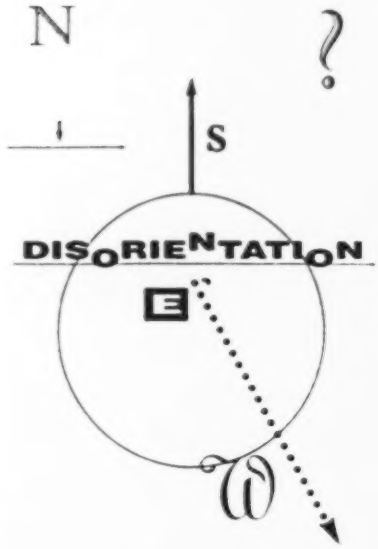
Wayfinding: You Are Here/You Are There

by Jacqueline Gommel

When we feel lost or need to go somewhere and don't know how to get there, we are in situations that can result in anxiety and stress. When we cannot "find our way", schedules are interrupted, appointments are missed, and time is wasted. Depending on the circumstances, our feelings may range from mere irritation and frustration to those of helplessness and panic. Uncertainty can quickly change to total disorientation, affecting our sense of balance and well-being.

Interior designers and planners are faced with the opportunity and perhaps the obligation to create environments in which people not only feel comfortable, but that can be understood easily. When we understand an environment, we are better prepared to successfully and safely find our way. As designers and planners, we must understand wayfinding and realize the important part it plays in our lives.

Although wayfinding activity has existed since prehistoric man first left his cave in search of food, it is only recently that wayfinding has gained importance and visibility as people strive for customer satisfaction and user-friendly environments. Facility owners and managers are rapidly coming to the realization that people prefer buildings where they feel comfortable and can find their way easily.



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Throughout history, labyrinths and mazes have symbolized disorientation. Recently, these terms have been used to describe confusing environments such as hospitals, shopping malls, airports, and office buildings. As these facilities expand and become even more complicated, orienting staff and visitors becomes more critical.

According to Downs and Stea (1977), orientation is the first step in successful wayfinding (p. 125). To be oriented, we must know where we are. To know where we are, we must understand the world around us. To understand the world, we must identify the parts and comprehend the relationship between the parts (p. 53, 59).

Thousands of years ago, prehistoric man identified the things he saw around him by making crude drawings or carvings on cave walls.

He viewed his world in relation to the elements of nature:

As language developed, names and meanings were added. The unknown became known, chaos was transformed into order, and the world became manageable.

Most likely, maps evolved as a way to represent or symbolize this knowledge of the environment and as a means to communicate a sense of place, some sense of here in relation to there, (Wilford, 1981, p. 1). With this realization, the world became a structured space, a system of places (Norberg-Schultz, 1980, p.28).

Through images, names and meanings we are able to grasp the concept of a sense of place. A sense of place is that comfortable feeling of being at home in, and belonging to, some particular part of the world. It provides a feeling of security which blends together past and future. A sense of place is essential to any ordering of our lives (Downs and Stea, 1977, p.27, 160, 240).

For years, scientists, behaviorists, and psychologists have studied animals and humans to better understand why they do what they do. In 1948, psychologist

Edward Tolman conducted what are now considered classic studies of the behavior of rats in mazes. Using two different maze designs, he observed how the rats found their way through the mazes to locate cheese.

Through these experiments, Tolman concluded that the rats actually organized and interpreted information from their environment to solve the problem of locating food. He proposed that the rats actually formed a map in their minds, a "cognitive map", to find the cheese (Tolman, 1948, p. 192; Downs and Stea, 1977, p. 35).

Cognitive mapping has been used to define the process that enables us to mentally organize or comprehend the world around us. Cognitive maps are formed by information from our environment that we obtain from our senses: sight, smell, sound, taste, and touch.

Lynch (1960) noted that nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences (p. 1).

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Downs and Stea (1977) explained that our cognitive abilities enable us to

information about our environment. We then combine all of the parts into an integrated representation of the world, as we believe it to be, in our minds. In doing so, we create a mental image, a cognitive map (p. 6, 27).

Over a decade after Tolman's studies of rats, architect Kevin Lynch studied how people living in Boston, Jersey City, and Los Angeles orient themselves. He found certain places were more "legible"; that is, they were easier to understand and organize into a coherent

pattern (1960, p. 2, 3). He referred to "wayfinding devices" such as maps, street numbers, and route signs; but determined that it is physical form and arrangement which enable us to create a mental image of the environment. When image-making is difficult, we feel lost (p. 4).

In his book, *Image of the City*, Lynch identified five basic elements which contribute to the "legibility" or

"imageability"

of an environment:

1. *paths* people follow
2. *edges* of neighborhoods
3. socially or physically defined *districts*
4. *nodes* where paths cross
5. memorable *landmarks*

(Lynch, 1960, p. 46, 47; Malkin, 1992, p. 468). These five elements are still used in current discussions regarding wayfinding design and theory.

During the 1970's, the study of cognitive mapping continued. Professors Downs and Stea (1977) noted that when we go from where we are to some other place, we are involved in a complex process called wayfinding. Wayfinding, they concluded, is spatial problem solving.

According to Downs and Stea, wayfinding consists of four sequential and interrelated steps (p.125):

1

ORIENTATION

2

THE CHOICE OF ROUTE

3

KEEPING ON THE RIGHT TRACK

4

DISCOVERY OF THE OBJECTIVE

In the twenty years since Downs and Stea, there have been numerous others who have contributed significantly to wayfinding research. Representing backgrounds in urban planning, environmental psychology, sociology, architecture, interior design and environmental graphic design, their efforts have proven that wayfinding is not only a complex process, but a critical design issue involving several disciplines.

Passini and Arthur noted that to understand wayfinding is to understand how we use the information the environment provides: architectural, graphic, and verbal information (Passini, 1984; Arthur and Passini, 1992).

ARCHITECTURAL INFORMATION

GRAPHIC INFORMATION

VERBAL INFORMATION

Not only must different types of information be communicated, designers must realize there are different types of users. People rely on different types of information to solve wayfinding problems, which results in different wayfinding styles.

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Some prefer linear or sequential information, as provided by signs; whereas, others depend upon spatial information, how a setting is organized (Passini, 1984; Arthur and Passini, 1992). The passing of the Americans with Disabilities Act (ADA) has also resulted in a greater sensitivity towards people who are impaired or disabled in some way.

No one element can work in isolation; there should be multiple guiding and reinforcing cues. Architectural, graphic, and verbal information must be part of a well-developed group of elements all functioning together, known as a Wayfinding System (Carpman, Grant, Simmons, 1986; Malkin, 1992). Through an effective Wayfinding System, information becomes available and the environment becomes accessible to a greater number of people. Elements of an effective Wayfinding System are as follows:

1. Spaces that are well-differentiated or visually distinctive through the use of lighting, color or texture
2. Being able to see through a space or to the outside of a building to maintain a point of reference
3. A building layout that is easy to understand or remember
4. Memorable landmarks such as plants, artwork, and furniture arrangements
5. Signs, symbols, directories, and maps
6. Staff who are well-trained in the art of giving instructions.

(Passini, 1980b, 1984; Arthur and Passini, 1992; Calkins, 1988, 1989; Carpman, Grant, and Simmons, 1986; Carpman, 1987; Malkin, 1988, 1989, 1992; Weisman, 1981, 1989).

As hospitals, shopping malls, airports, and office buildings become more complicated and expansive, finding one's way easily, quickly, and safely are needs everyone will face at some time. Designers and planners must be trained to address these needs, to provide the right information at the right place, and to incorporate the appropriate elements which will make wayfinding easier for everyone.

This does not mean, however, that the environments we create should be simple. Dull, uninteresting environments provide little or no environmental information, causing the greatest problems in wayfinding. Distinctive environments are ones that make sense. Stimulating environments guide, enlighten, entertain, and educate us. Well-designed environments enable us to enjoy the experience of getting to "*there*" and that, after all, is what wayfinding is all about.

YOU ARE THERE

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The preceding represents a summary of a document created for a Master of Arts degree in Interior Design at Northern Illinois University, DeKalb, Illinois. This degree required the presentation of a one-person show rather than a thesis.

The exhibit consisted of sixty 11" x 17" pages mounted onto 1/8" foam core board. This size was used because it would be better for viewing from a distance and could be easily produced on a basic office copy machine. Some of the images were enhanced using color copying, markers, and colored paper.

There were eight sections in the exhibit, with each section illustrating a certain aspect of wayfinding. These were displayed in multiple spaces which required the viewer to move from one distinct area to another, "finding their way" through the display.

Five of the eight sections were suspended from 1-1/4" wooden closet rods using utility hooks and fishing line. The rods were painted bright yellow, which not only contrasted with other colors in the space, but also became a unifying factor for the show. Additional display techniques incorporated tackable wall surfaces, photo boxes, and a commercial display unit used for trade shows. A wayfinding logo, initially created for invitations to the event, was combined with large numbers and used to identify each section.

Although the process of wayfinding is essential to our daily lives, little information exists which relates interior design and planning to wayfinding issues. If, as designers and planners, we must create environments which make wayfinding easier, then students should be exposed to these concepts as part of their basic education in design and planning.

Consequently the sixty pages of this exhibit were developed so they could be bound into a book for students. The larger format and bold graphic elements were selected to deviate from a more typical textbook appearance. Visuals and font selection were used to add interest and reinforce wayfinding concepts; for example, creating visual "landmarks".

This collection of material was designed to provide an overview, serving as a basic study guide or introductory primer on wayfinding. An extensive bibliography was provided (although not included here) to facilitate further research on the part of the student.

As designers, we must provide information that makes wayfinding easier for everyone. As educators, we must provide information that enables students to grasp the concepts crucial to effective design. Stimulating environments guide, enlighten, entertain, and educate us--so too, do stimulating instructional materials.

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